

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R945 055435-1866 - Diesel Engine

Sample No: LH0252127

Oil Type: SAE 10W40



SAMPLE INFORMATION

Sample Number	LH0252127	LH0256973	---	---
Sample Date	31 Jul 2023	27 Mar 2023	---	---
Machine Hours	1467	1015	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

CLOUTHIER VENTURES LTD.
 59 MATTHEWS STREET, R.R. # 5
 PEMBROKE, ON
 CA K8A 0A6
 Contact: Travis Bennett
 tbennett@clouthierconst.com
 T: (613)735-6531
 F: (613)735-2769



OIL CONDITION

Visc @ 100°C	cSt	13.5	13.2	---	---
Oxidation (PA)	%	60	73	---	---



CONTAMINATION

Soot %	%	0	0	---	---
Nitration (PA)	%	62	71	---	---
Sulfation (PA)	%	54	62	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	8	6	---	---
Sodium	ppm	1	1	---	---
Potassium	ppm	<1	0	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	4	6	---	---
Copper	ppm	2	5	---	---
Lead	ppm	<1	2	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	1	2	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	57	58	---	---
Nickel	ppm	0	<1	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	1050	1163	---	---
Magnesium	ppm	987	961	---	---
Zinc	ppm	1183	1155	---	---
Phosphorus	ppm	1062	1053	---	---
Barium	ppm	<1	2	---	---
Boron	ppm	4	10	---	---

Depot: CLOPEM
 Unique No: 5630721
 Signed: Wes Davis
 Report Date: 23 Aug 2023



GRAPHS

